

In the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application. Please cancel claims 1-36 without prejudice to or disclaimer of the subject matter therein. Please add new claims 37-58. No new matter has been added.

Listing of the Claims:

Claims 1-36 (Canceled)

37. (New) A method, comprising:

outputting a signal associated with a first haptic force associated with a first force profile, the first force profile being associated with a graphical representation for display within a graphical user interface;

receiving a control signal associated with a movement of a control point of the graphical representation, the movement of the control point operative to change the first force profile to a second force profile; and

outputting a signal associated with a second haptic force, the second haptic force being based on the second force profile and being different from the first haptic force.

38. (New) The method of claim 37, wherein at least one actuator is configured to output at least one of the first haptic force and the second haptic force as a function of displacement of a manipulandum.

39. (New) The method of claim 37, wherein the movement of the control point is operative to modify a stiffness associated with the first force profile to obtain the second force profile.

40. (New) The method of claim 37, the control point being a first control point from a plurality of control points, wherein the movement of at least the first control point and a second control point from the plurality of control points being operative to modify a slope associated with the first force profile.

41. (New) The method of claim 37, wherein the movement of the control point is operative to modify a damping parameter associated with the first force profile.

42. (New) The method of claim 37, the control point being from a plurality of control points, wherein each control point from the plurality of control points is independently moveable.

43. (New) The method of claim 37, wherein the second force profile is symmetrical about a midpoint independent of the movement of the control point.

44. (New) A method, comprising:

enabling a display of a graphical representation of a first force profile associated with a plurality of displacements of a manipulandum of a force feedback interface device, each displacement from the plurality of displacements being associated with its own haptic force; and

enabling output of a haptic force associated with a second force profile, the second force profile being based on a movement of a plurality of control points associated with the graphical representation of the first force profile, the movement of the plurality of control points being associated with the plurality of displacements.

45. (New) The method of claim 44, wherein the haptic force is based at least in part on a velocity of the manipulandum.

46. (New) The method of claim 44, wherein the first force profile and the second force profile are associated with a characteristic of a liquid.

47. (New) The method of claim 44, wherein the first force profile and the second force profile are associated with a characteristic of a liquid, at least one control point from the plurality of control points enabling modification of a viscosity of the liquid.

48. (New) The method of claim 44, wherein the first force profile and the second force profile are associated with a characteristic of a liquid, at least two control points from the plurality of control points enabling the modification of a flow of the liquid.

49. (New) A method, comprising:

displaying a graphical representation of a first force profile associated with a haptic force, the graphical representation having a plurality of control points, each control point from the plurality of control points associated with a modifiable portion of the first force profile;

updating data values associated with a movement of at least one control point from the plurality of control points, a second force profile being based on the data values associated with the movement; and

outputting via an actuator the haptic force based on the second force profile.

50. (New) The method of claim 49, wherein the graphical representation includes a spatial grid.

51. (New) The method of claim 49, wherein the graphical representation is associated with an axis of motion of a manipulatable object of a force feedback interface device, the manipulatable object being moveable in a plurality degrees of freedom.

52. (New) The method of claim 49, wherein the displaying includes displaying the graphical representation at a given angle in a two axis plane, the angle being selectively changeable.

53. (New) The method of claim 49, wherein the graphical representation indicates a direction of the haptic force based on a direction parameter.

54. (New) The method of claim 49, wherein the graphical representation indicates a magnitude of the haptic force based on a magnitude parameter.

55. (New) A processor-readable medium comprising code representing instructions to cause a processor to:

display a graphical representation of a first force profile associated with a haptic force, the graphical representation having a plurality of control points, each control point from the plurality of control points associated with a modifiable portion of the first force profile;

update data values associated with a movement of at least one control point from the plurality of control points, a second force profile being based on the data values associated with the movement; and

output via an actuator the haptic force based on the second force profile.

56. (New) The processor readable medium of claim 55, wherein the graphical representation is associated with an axis of motion of a manipulatable object of a force feedback interface device, the manipulatable object being moveable in a plurality degrees of freedom.

57. (New) A processor-readable medium comprising code representing instructions to cause a processor to:

output a signal associated with a first haptic force associated with a first force profile, the first force profile being associated with a graphical representation for display within a graphical user interface;

receive a control signal associated with a movement of a control point of the graphical representation, the movement of the control point operative to change the first force profile to a second force profile; and

output a signal associated with a second haptic force, the second haptic force being based on the second force profile and being different from the first haptic force.

58. (New) A processor-readable medium comprising code representing instructions to cause a processor to:

enable a display of a graphical representation of a first force profile associated with a plurality of displacements of a manipulandum of a force feedback interface device, each displacement from the plurality of displacements being associated with its own haptic force; and

enable output of a haptic force associated with a second force profile, the second force profile being based on a movement of a plurality of control points associated with the graphical representation of the first force profile, the movement of the plurality of control points being associated with the plurality of displacements.